

**Notice of Allowability**

Application No.

09/997,643

Examiner

Matthew Bradley

Applicant(s)

OHRAN, RICHARD S.

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 13 April 2007.
2. ☒ The allowed claim(s) is/are 24-38, 40-44 and 46-53.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 13 April 2007 has been entered.

### ***Claim Status***

Claims 24-38, 40-44, and 46-53 remain pending and are ready for examination.

### ***Allowable Subject Matter***

Claims **24-38**, **40-44**, and **46-53** are allowed.

The following is an Examiner's statement of reasons for allowance: the prior art made of record teaches a snapshot method, but fails to teach the combination including the limitation of:

(Claim **24**) "...as the designated first data blocks at the mass storage device change after the first point in time, identifying specific data blocks of the designated first data blocks that change at the mass storage device; preserving a copy of only the specific data blocks of the designated first data blocks that change and not a copy of the data blocks of the second data blocks that change, wherein the preserved copy of the changed designated data blocks represents an original copy of the changed data blocks of the designated first data blocks prior to changing; ...";

(Claim 35) "...as the data blocks at the mass storage device change after a first point in time, identifying the data blocks of the first subset that change at the mass storage device; preserving only a copy of the data blocks of the first subset that change and not a copy of the data blocks of the second subset that change, wherein the copy of the changed data blocks represents an original copy of the changed data blocks of the first subset prior to changing; ...";

(Claim 41) "...as the data blocks at the mass storage device change after a first point in time, identifying the data blocks of the selected data blocks that change at the mass storage device; preserving only a copy of the data blocks of the selected data blocks that change and not a copy of the data blocks of the second data blocks that change, wherein the copy of the changed data blocks represents an original copy of the changed data blocks of the selected data blocks prior to changing;...";

(Claim 46) "...as the data blocks at the mass storage device change after a first point in time, identifying the data blocks of the first designated subset that change at the mass storage device; preserving only a copy of the data blocks of the first designated subset that change and not a copy of the data blocks of the second subset that change, wherein the copy of the changed designated data blocks represents an original copy of the changed data blocks of the first designated subset prior to changing;...";

(Claim 53) "...during a time period between the first time and a second time, only tracking changes to the first data blocks of the mass storage device so as to identify which data blocks of the first data blocks change in the time period while continuing to provide access to the mass storage device; and at the second time when the data

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blocks are in a logically consistent state, initiating an update of the snapshot copy by transmitting only those data blocks of the first data blocks that have changed during the time period between the first time and the second time to the snapshot copy such that the snapshot copy includes a copy of the first data blocks as the data blocks existed on the mass storage device at the second time without interrupting access to the mass storage device.”;

As dependent claims **25-34, 36-38, 40, 42-44, and 47-52** depend from an allowable base claim; they are at least allowable for the same reasons as noted *supra*.

The prior art made of record neither anticipates nor renders obvious the above-recited combinations for at least the reasons specified and as shown in Applicant's Arguments filed 13 April 2007.

The claims have been renumbered as following:

Original	24	25	26	27	28	29	30	31	32	33	34	35	36	37
Final	1	2	3	4	5	6	7	8	9	10	11	12	13	14

Original	38	40	41	42	43	44	46	47	48	49	50	51	52	53
Final	15	16	17	18	19	20	21	22	23	24	25	26	27	28

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

**Conclusion**

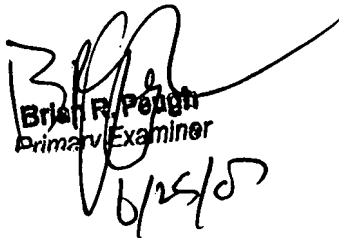
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew Bradley whose telephone number is (571) 272-8575. The examiner can normally be reached on 6:30-3:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald A. Sparks can be reached on (571) 272-4201. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BRP/mb

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Brian R. Pugh  
Primary Examiner  
6/25/07